

The attached sheet(s) of corrected drawings address Examiner's rejections and replace the informal drawings currently on file. Figures 1-4 have been amended so that the figures are formal, having uniform lines and numbers. Figures 5 and 6 have been withdrawn, and thus figures 1 and 2 are presented on page "1 of 2" and figures 3 and 4 are presented on page "2 of 2" of the attached formal drawings.

Attachments: Figures 1-4 (2 pages)

Remove on page 9 description of Figures 5 and 6 from the **Brief Description of Figures** section.

Brief Description of Figures

Fig. 1 is a longitudinal cross sectional view of a nanoporous silica clad optical fiber.

Fig. 2 is a longitudinal cross-sectional view of a nanoporous silica clad optical fiber with a section of cladding that has been consolidated into a tapered diffuser.

Fig. 3 illustrates a nanoporous silica clad optical fiber with a section of cladding that has been consolidated into a spiral diffuser.

Fig. 4 illustrates a nanoporous silica clad optical fiber with a section of cladding that has been consolidated into a diffuser having a set of rings.

~~Fig. 5 illustrates an optical fiber having a sol-gel based diffuser that has been cast to a custom (cylindrical) shape and having a mirrored distal end face.~~

~~Fig. 6 illustrates an optical fiber having a sol-gel based diffuser that has been cast to a spherical shape.~~

On pages 13-14 line 20 through line 2, remove paragraph on material referring to Figures 5 and 6.

Consolidation of the described nanoporous silica cladding does not have to be uniform. The nanoporous cladding can be consolidated in a variety of patterns, which might better suite a specific need. Referring now to **Figs. 2, 3 and 4**, consolidation can form a tapered diffusion site (**22**), form spiral patterns along the length of the diffuser, or form rings (**40**) along the length of the active section where loss is desired.

~~Referring now to **Figs 5 and 6**, in another preferred embodiment, a diffuser having a custom shape (**50**) or a spherical shape (**60**) can be achieved. The distal end of an optical fiber, preferably having a nanoporous silica cladding (**54, 64**) is placed into a silicon rubber mold having a desired shape. The mold is filled with a modified sol-gel precursor solution. The molded solution is then cured to form a diffuser precursor having the same shape as the mold. The diffuser precursor is then removed from the mold and heated to form a nanoporous silica diffuser precursor. The nanoporous silica precursor is treated with a desired scattering material. The treated nanoporous silica precursor is then heated to a higher temperature to consolidate the nanoporous structure and convert the nanoporous silica precursor into a diffuser having a custom shape. If an optical hot spot is a concern, the distal ends of the diffusers can be polished, then coated with a reflective coating or mirror (**52**).~~